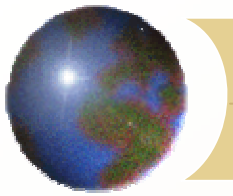


How Far are They Willing to Go?

A Study of the Journey to Part I and Part II Crime by Offender Characteristics

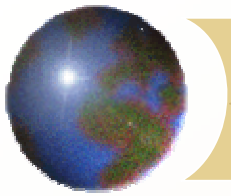
Karen L. Hayslett-McCall
The University of Texas at Dallas





Introduction

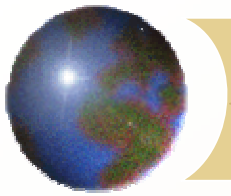
- ◆ Reconsidering distance
 - ◆ “True” travel distance versus Euclidian/Manhattan distances
- ◆ Using Geospatial Information Systems (GIS) to overcome limitations in previous methodologies



Research in Progress

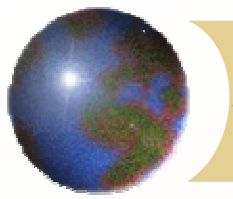
◆ Distance Decay

- ◆ Differences by type of crime
 - ◆ Violent/Property
 - ◆ Part I and Part II
- Differences by offender
 - ◆ Age
 - ◆ Gender
 - ◆ Race



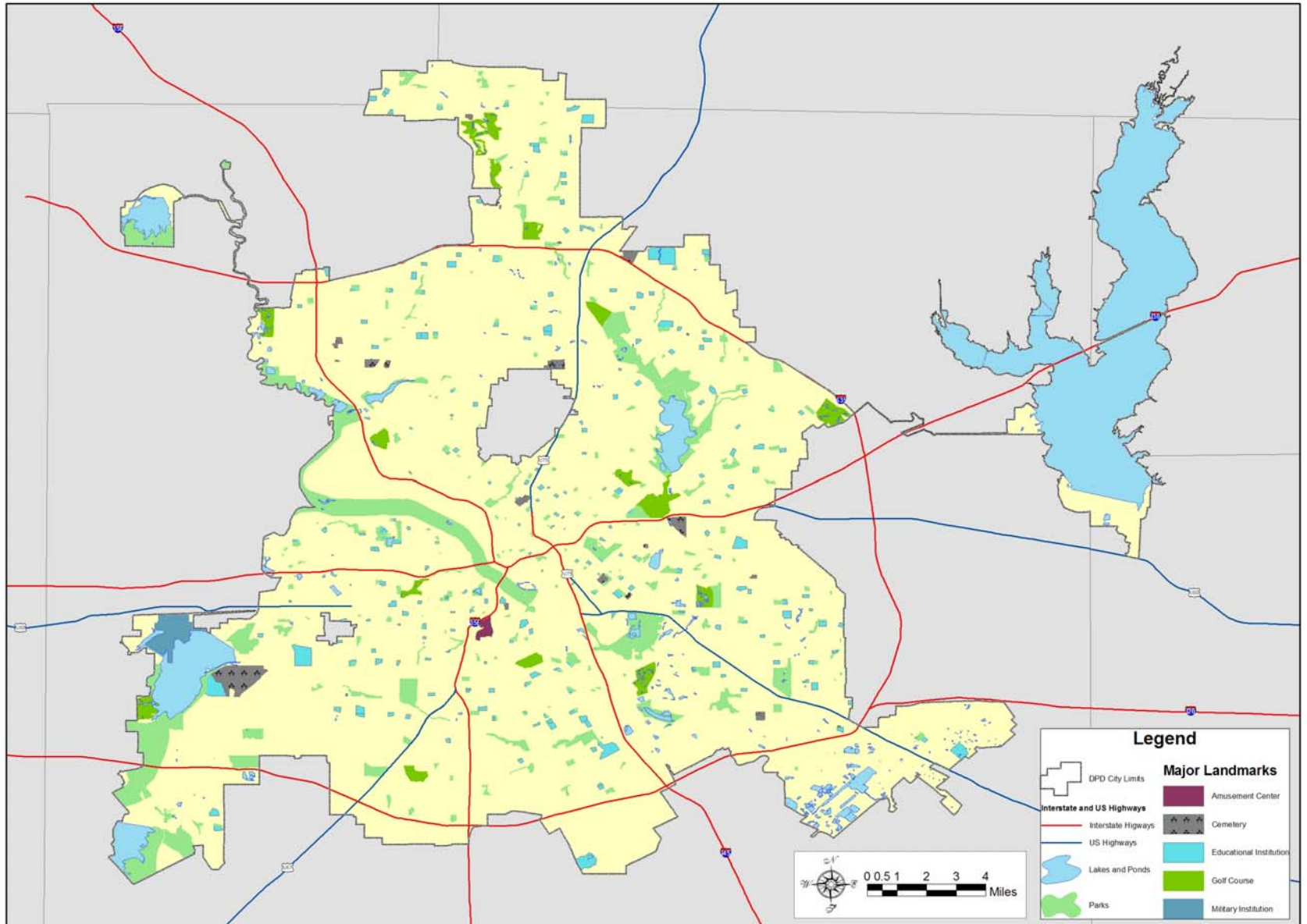
Data

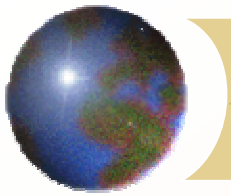
- ◆ Dallas Police Department
- ◆ 5 year sample
 - ◆ 1998 through 2002
- Types of Crimes
 - UCR – Part I and Part II
- Distance Calculations
 - Street Network Distance
 - Tiger Line Files



Dallas, Texas

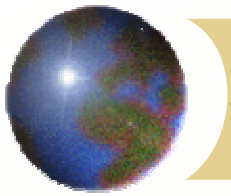
Dallas Overview





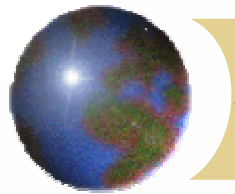
Distance

- ◆ Distance is determined by how it is measured.
- ◆ Two definitions of distance that have been commonly used:
 - ◆ Manhattan distance (Rectilinear)
 - ◆ Euclidian distance (Straight Line)

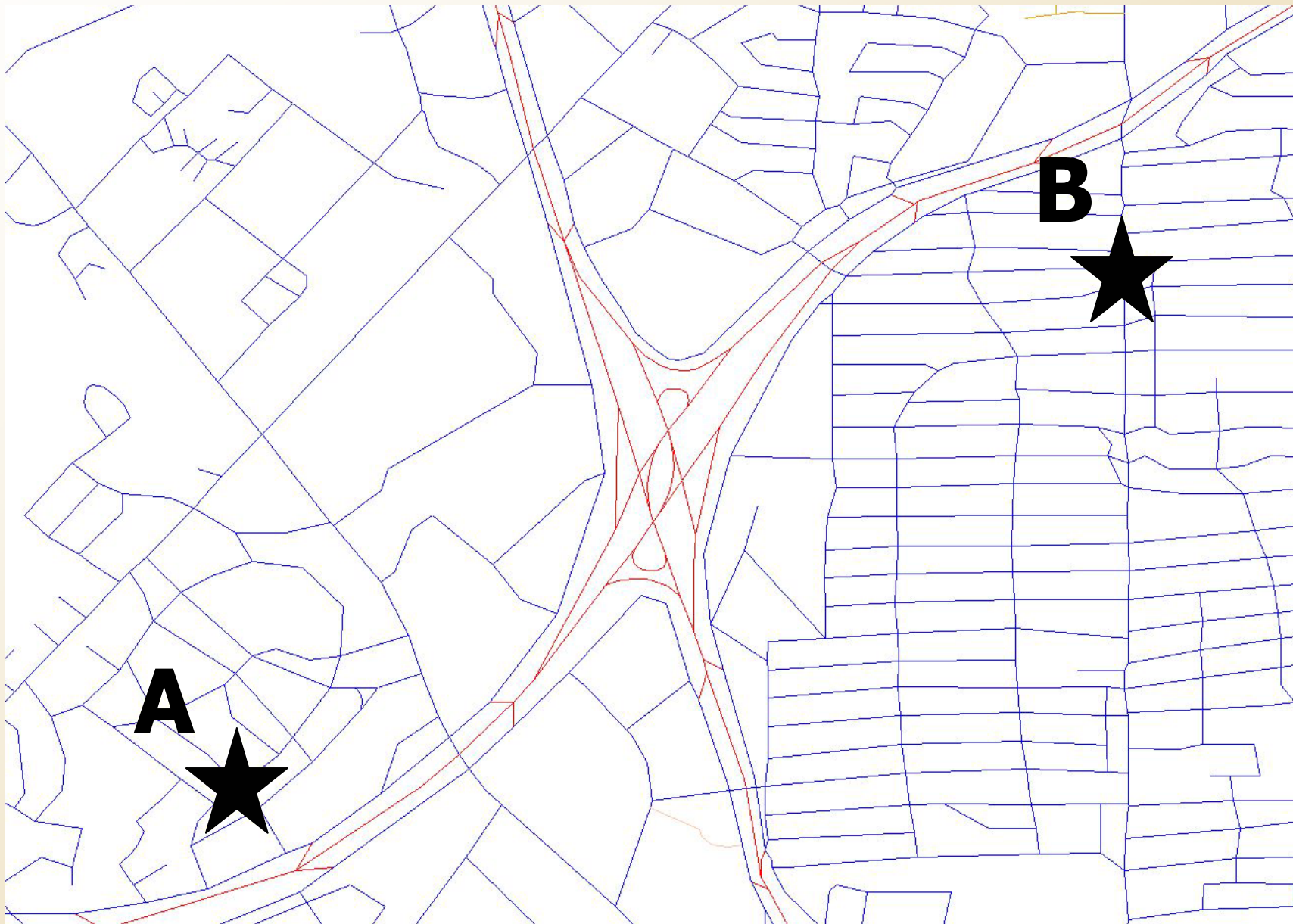


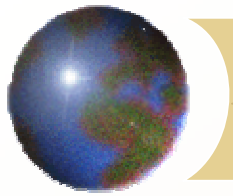
Distance

- ◆ The perception of distance is impacted by:
 - ◆ Type of street
 - ◆ Highway
 - ◆ Including the distance to an access location
 - ◆ Primary or secondary road
 - Direction of travel (vehicle vs. foot)
 - One way
 - ◆ Type of transit used



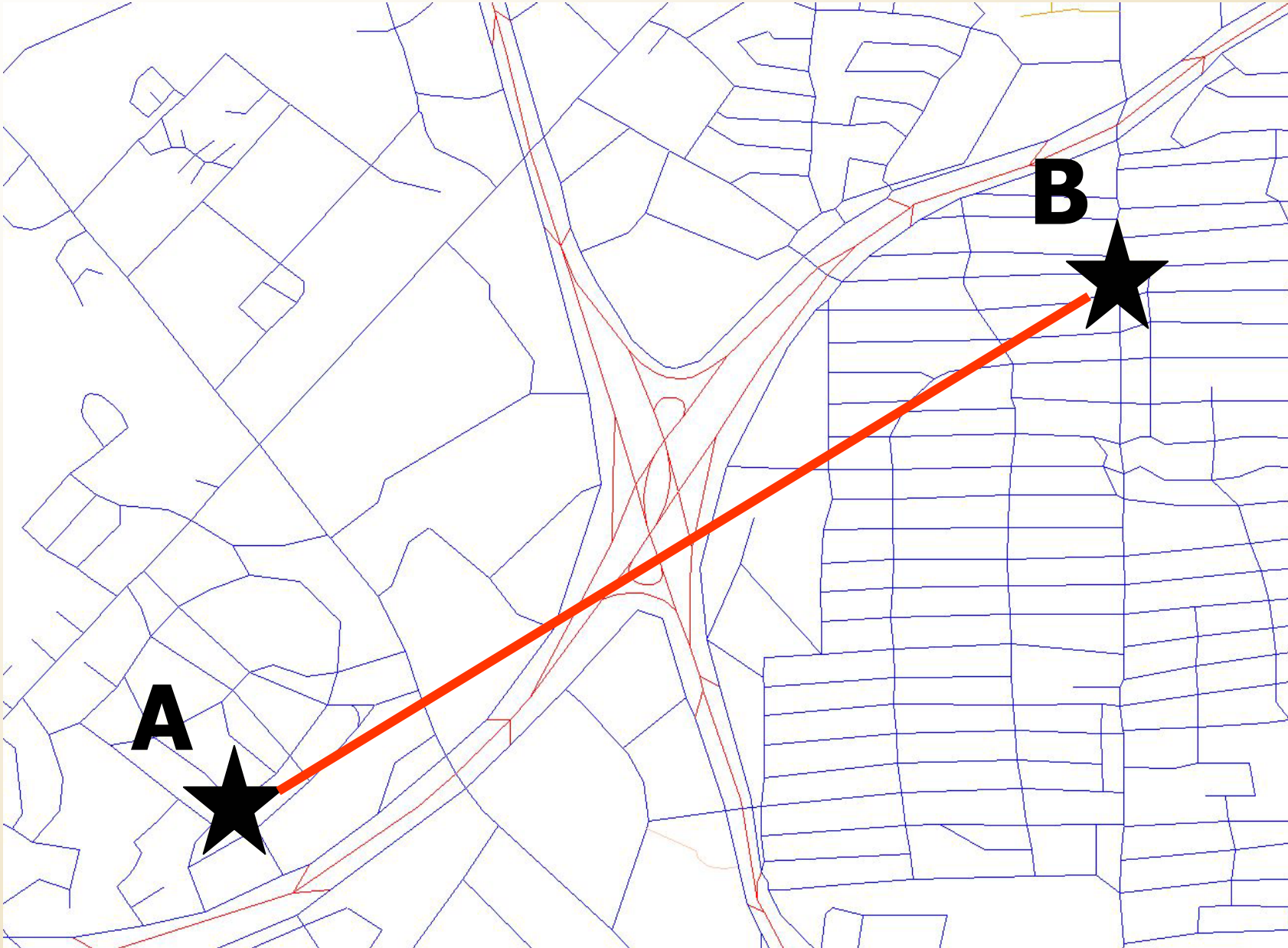
Distance to Offense

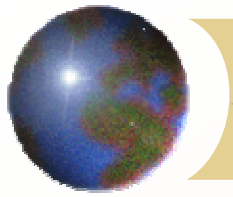




Euclidian Distance

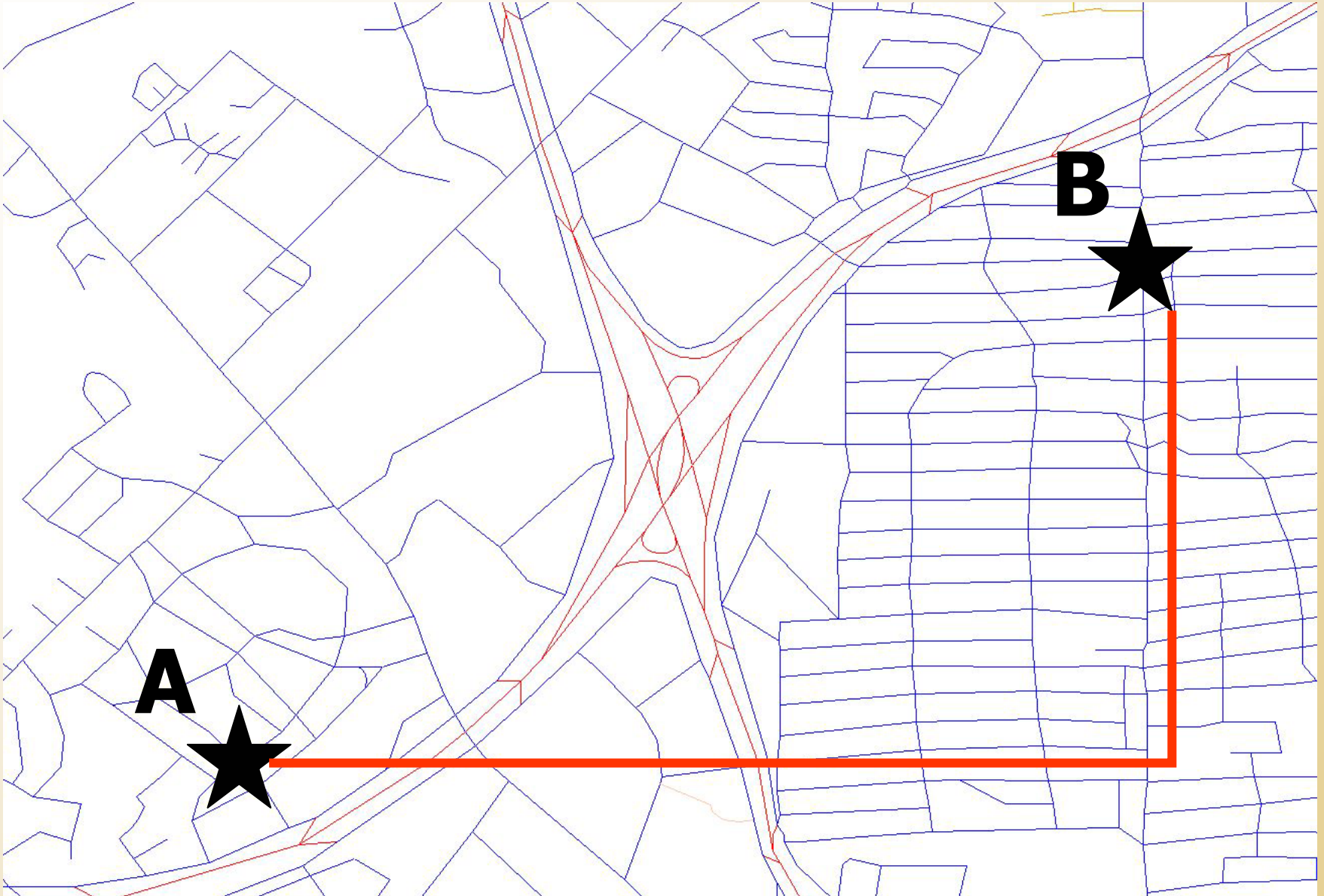
◆ Straight-Line

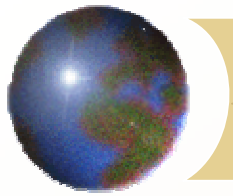




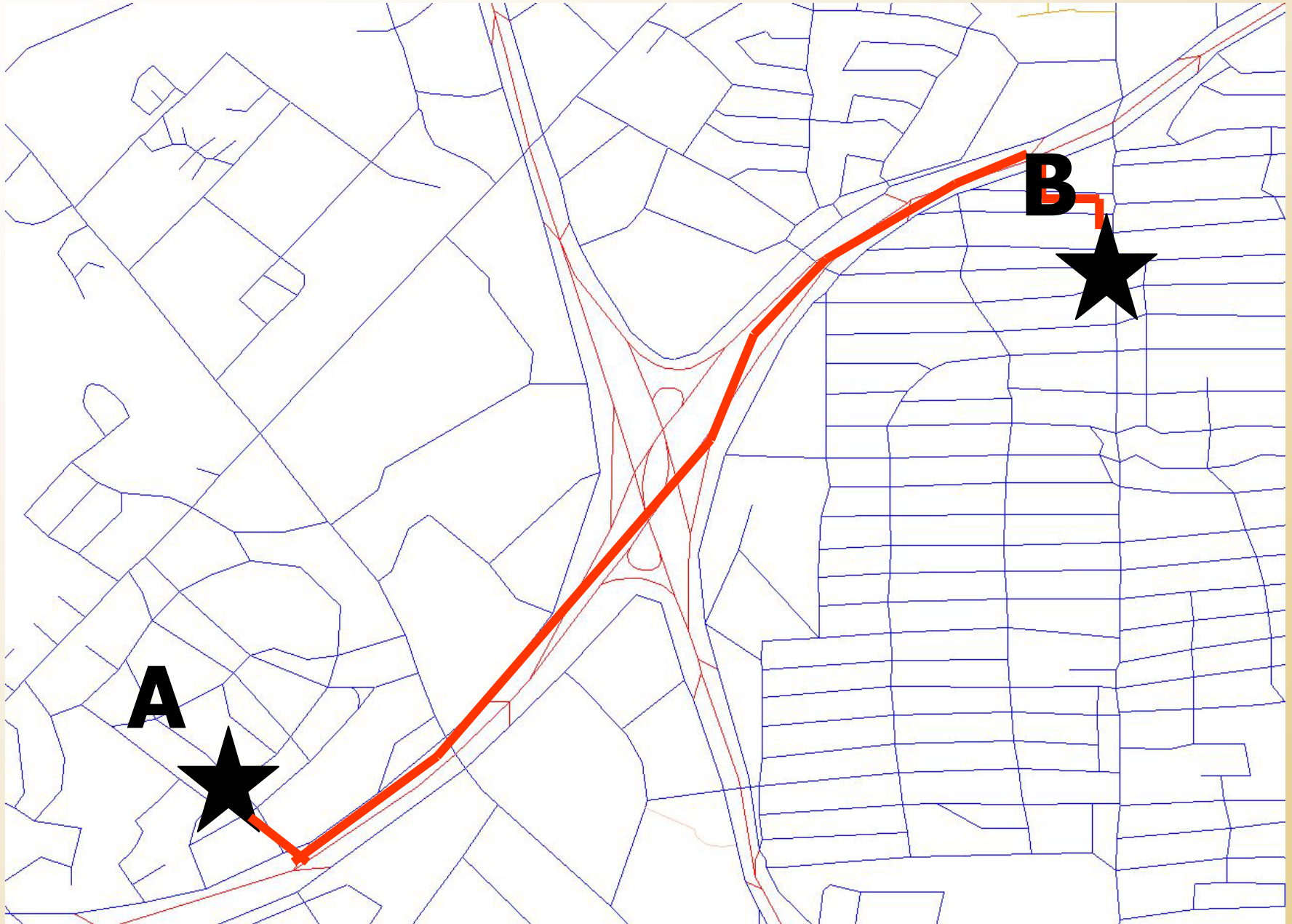
Manhattan Distance

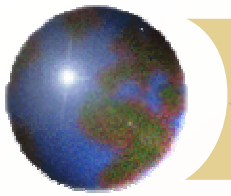
◆ Rectilinear





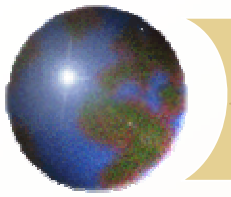
Street Network Distance





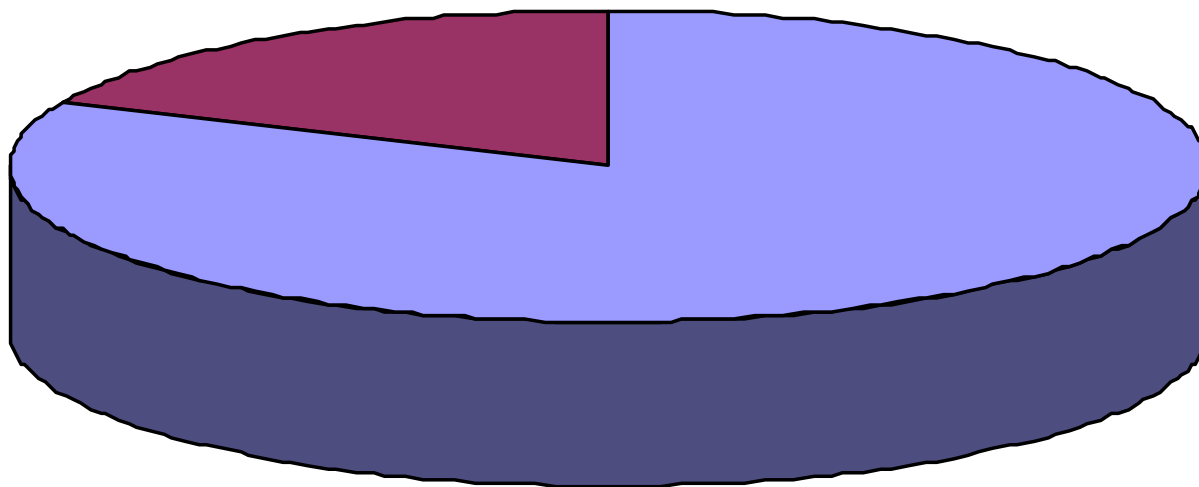
Demographics – Dallas Co.

Population, 2000	2,218,899
Age	
Persons under 5 years old, percent, 2000	8.20%
Persons under 18 years old, percent, 2000	27.90%
Persons 65 years old and over, percent, 2000	8.10%
Gender	
Male	49.10%
Female	50.10%
Race	
Black or African American	20.30%
American Indian	0.60%
Asian	4.00%
Hispanic or Latino origin	29.90%
White, not of Hispanic/Latino origin	44.30%



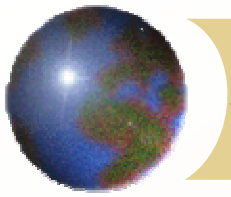
Characteristics of Those Arrested (2000 Data)

Gender



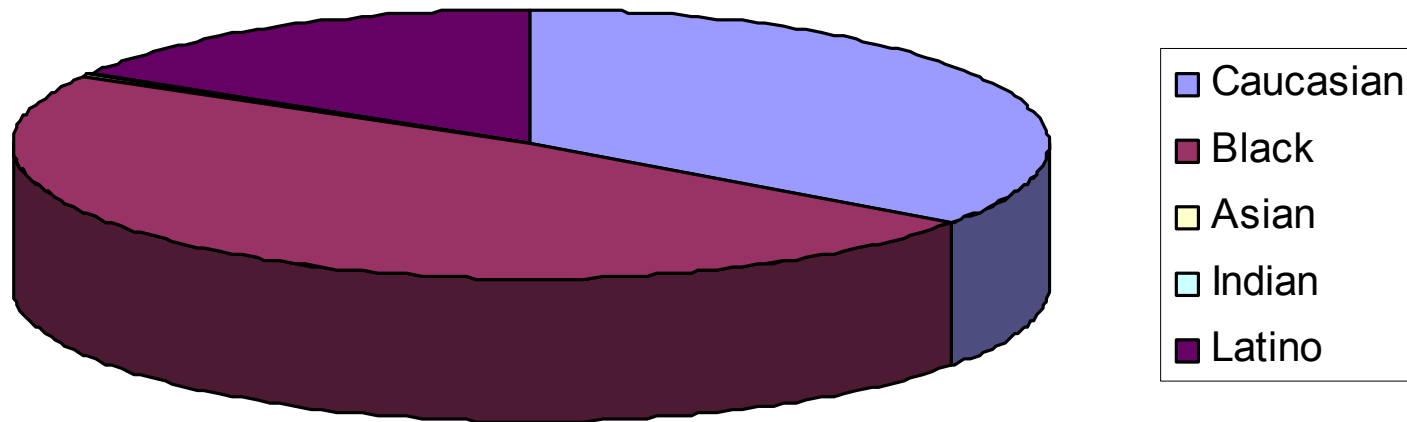
Male
Female

Male = 81.6%
Female = 18.4%



Characteristics of Those Arrested (2000 Data)

Race



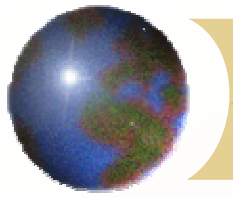
Caucasian = 34.9%

Black = 48.4%

Asian = 0.5%

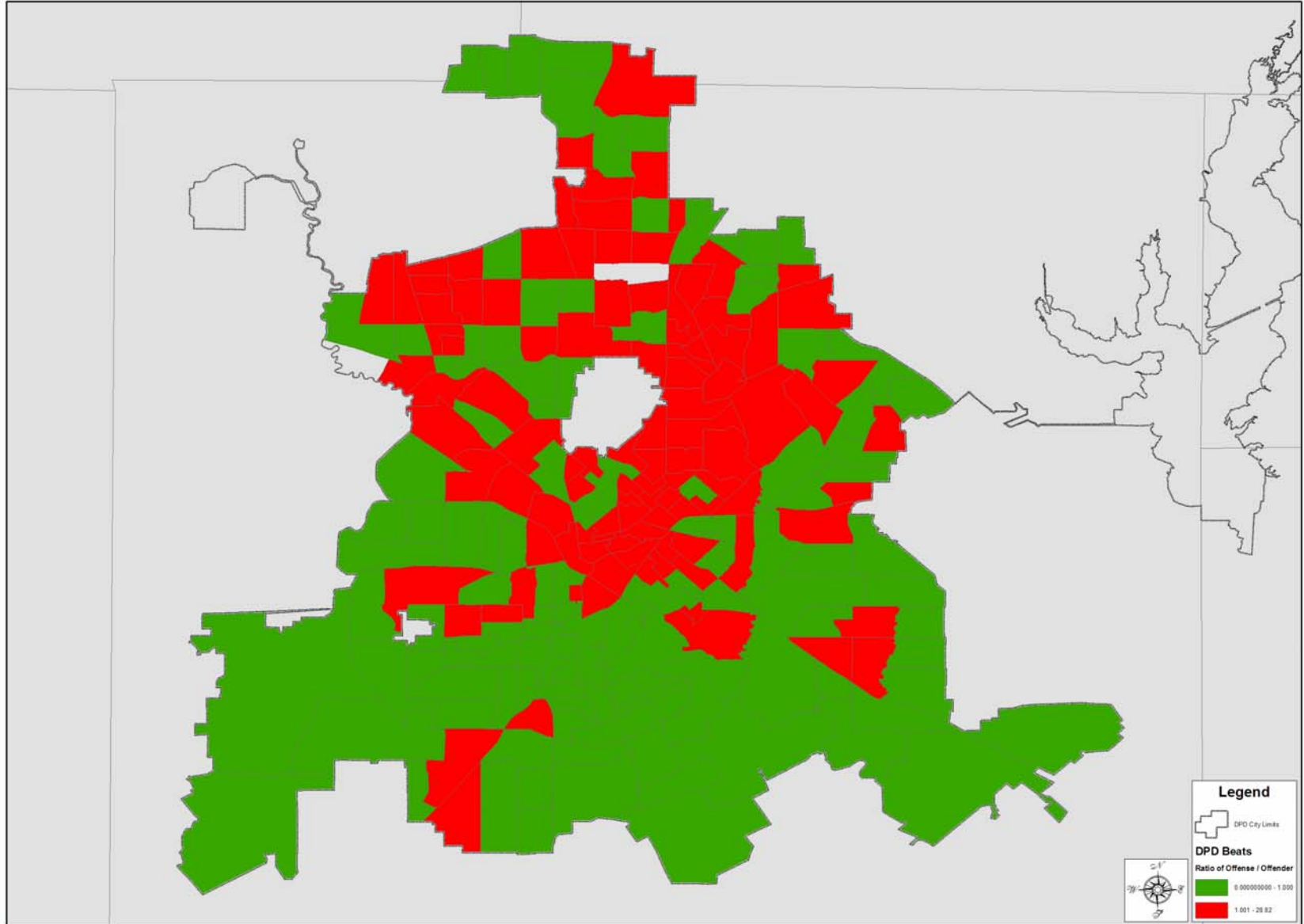
Indian = 0.2%

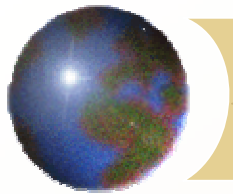
Latino = 16.1%



Exploratory Analyses

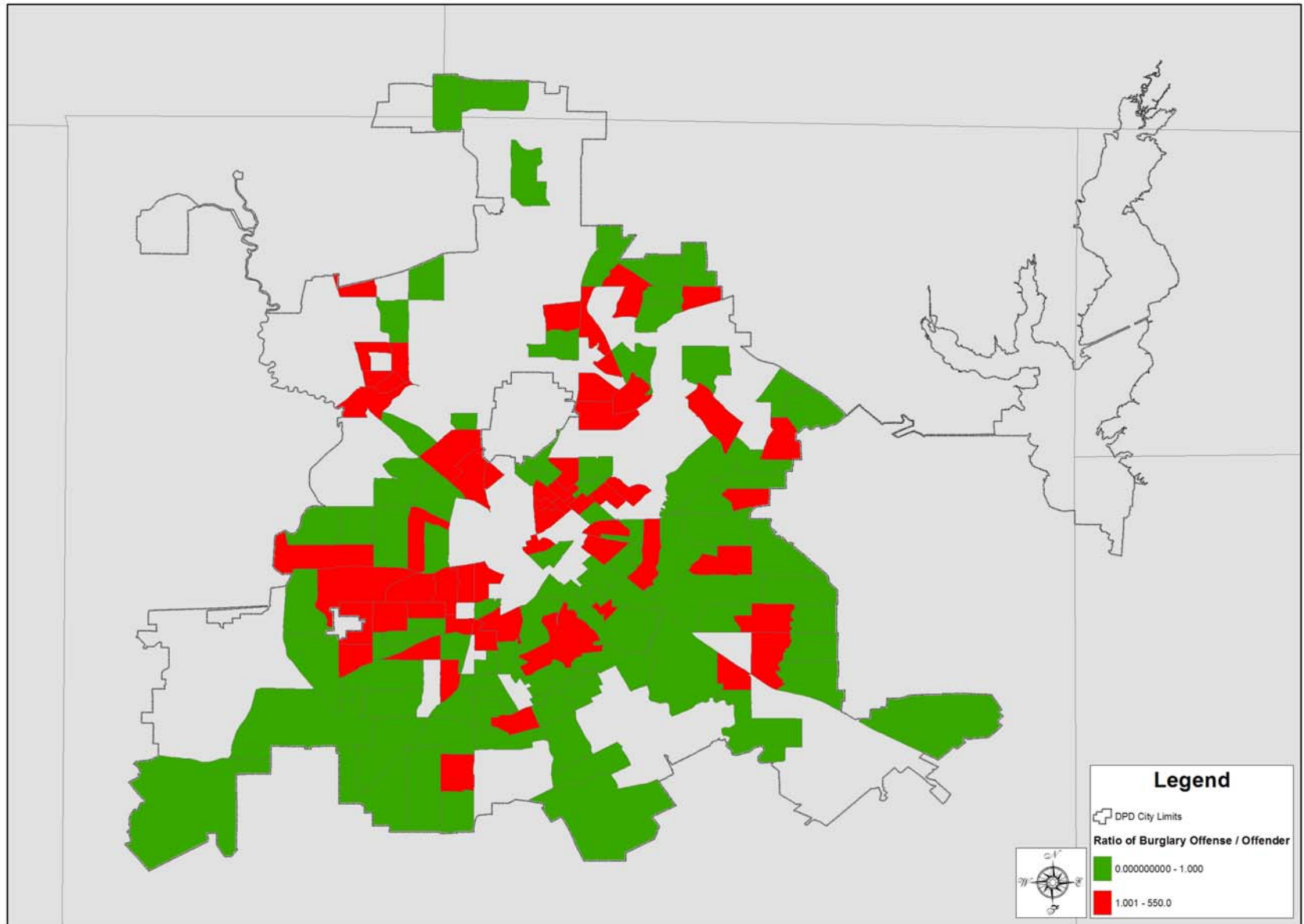
Visitors and Visiting
Distance Traveled by Offenders and Residents

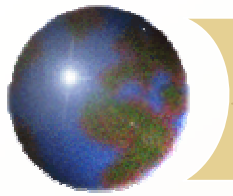




Exploratory Analyses

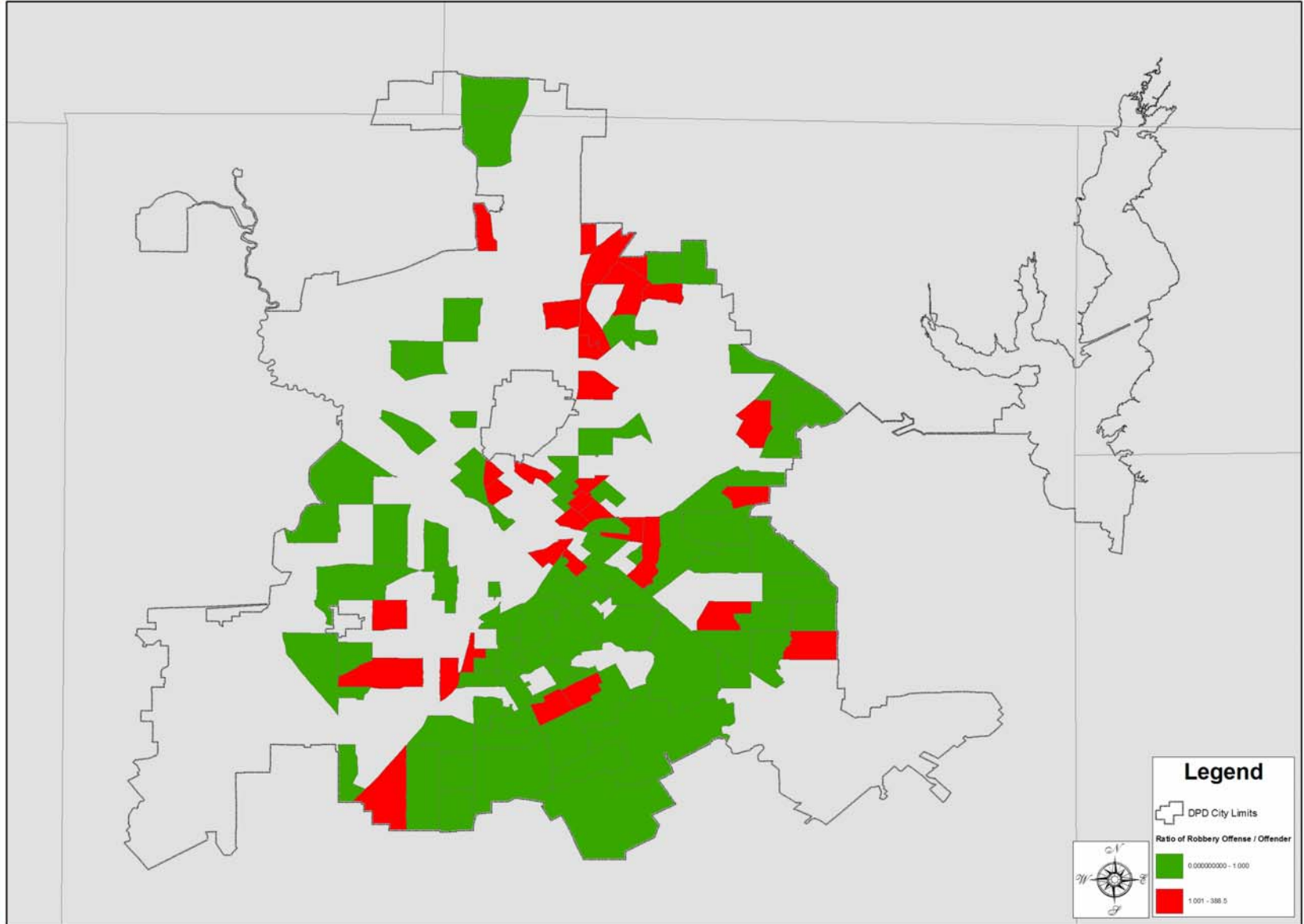
Visitors and Visiting
Distance Traveled by Offenders and Residents
Burglary Only

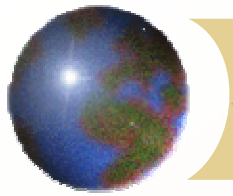




Exploratory Analyses

Visitors and Visiting
Distance Traveled by Offenders and Residents
Robbery Only





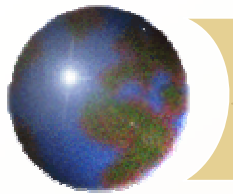
Early Regressions

◆ Across All Crime Types

- ◆ Black + (***)
- ◆ Latino - (***)
- ◆ Male - (***)
- ◆ Age - (***)

◆ Significance Levels

- ◆ * $\rightarrow p < .10$
- ◆ ** $\rightarrow p < .05$
- ◆ *** $\rightarrow p < .001$



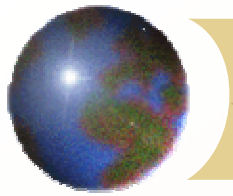
Early Regressions

◆ Robbery

- ◆ Black +
- ◆ Latino -
- ◆ Male + (**)
- ◆ Age - (*)

■ Burglary

- Black +
- Latino -
- Male +
- Age + (*)



Future Directions

- ◆ Breakdown by crime types.
 - ◆ Violent vs. property crimes
 - ◆ Part I or Part II crimes

- ◆ Inclusion of additional variables
 - ◆ Burglary → domicile information.